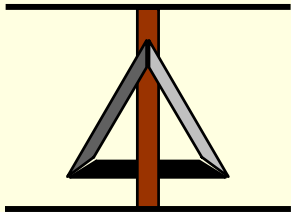


Data Model Patterns: A Metadata Map

East Coast Regional 2006

David C. Hay

May-June, 2006



Essential Strategies, Inc.

13 Hilshire Grove Lane, Houston, TX 77055

☎ (713) 464-8316

✉ dch@essentialstrategies.com

🌐 www.essentialstrategies.com

Cats are intended to teach us that not everything in nature has a function.

Unknown

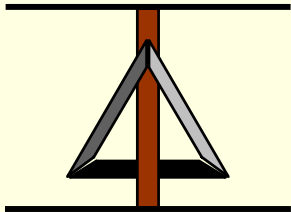
Home computers are being called upon to perform many new functions, including the consumption of homework formerly eaten by the dog.

Doug Larson

The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function.

F. Scott Fitzgerald

Column 2: Activities



Essential Strategies, Inc.







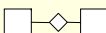


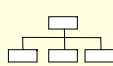



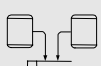
















13 Hilshire Grove Lane, Houston, TX 77055

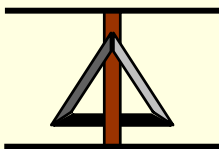
☎ (713) 464-8316

✉ dch@essentialstrategies.com

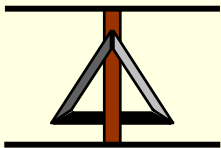
🌐 www.essentialstrategies.com

The Architecture Framework . . .

	Data (What)	Activities (How)	Locations (Where)	People (Who)	Time (When)	Motivation (Why)
Objectives / Scope (Planner's view)	List of things important to the enterprise 	List of processes the enterprise performs 	List of enterprise locations 	Organization approaches 	Business master schedule 	Business vision and mission 
Enterprise model (Business Owners' Views)	Language, divergent data model 	Business process model 	Logistics network 	Organization chart 	State / transition diagram 	Business strategies, tactics, policies, rules 
Model of Fundamental Concepts (Architect's View)	Convergent e/r model 	Essential data flow diagram 	Locations of roles 	The viable system, use cases 	Entity Life History 	Business rule model 
Technology Model (Designer's View)	Data base design 	System design, program structure 	Hardware, software distribution 	User interface, security design 	Control structure 	Business rule design 
Detailed Representation (Builder's View)	Physical storage design 	Detailed program design 	Network architecture, protocols 	Screens, security coding 	Timing definitions 	Rule specification program logic 
Functioning System	<i>(Working System)</i>					
	Converted data	Executable programs	Communications facilities	Trained people	Business events	Enforced rules



Row Two:
The business owner's View



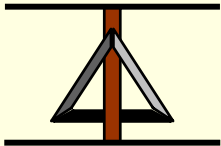
ACTIVITY

- # ID
- * NAME
- o DESCRIPTION
- * DATE ESTABLISHED
- o DATE DISCONTINUED

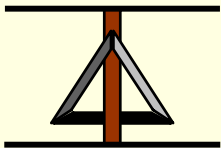
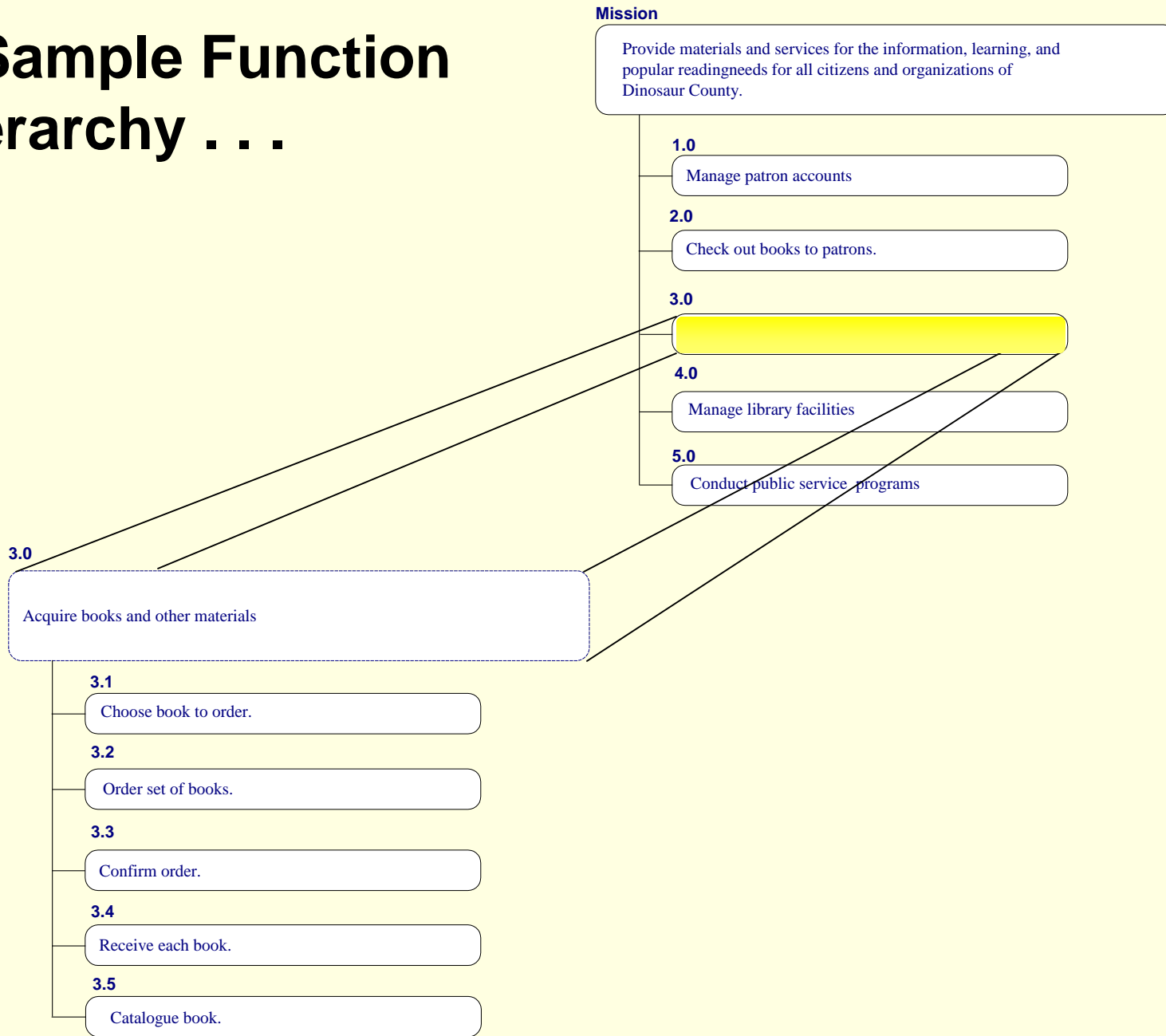
BUSINESS PROCESS

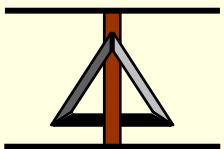
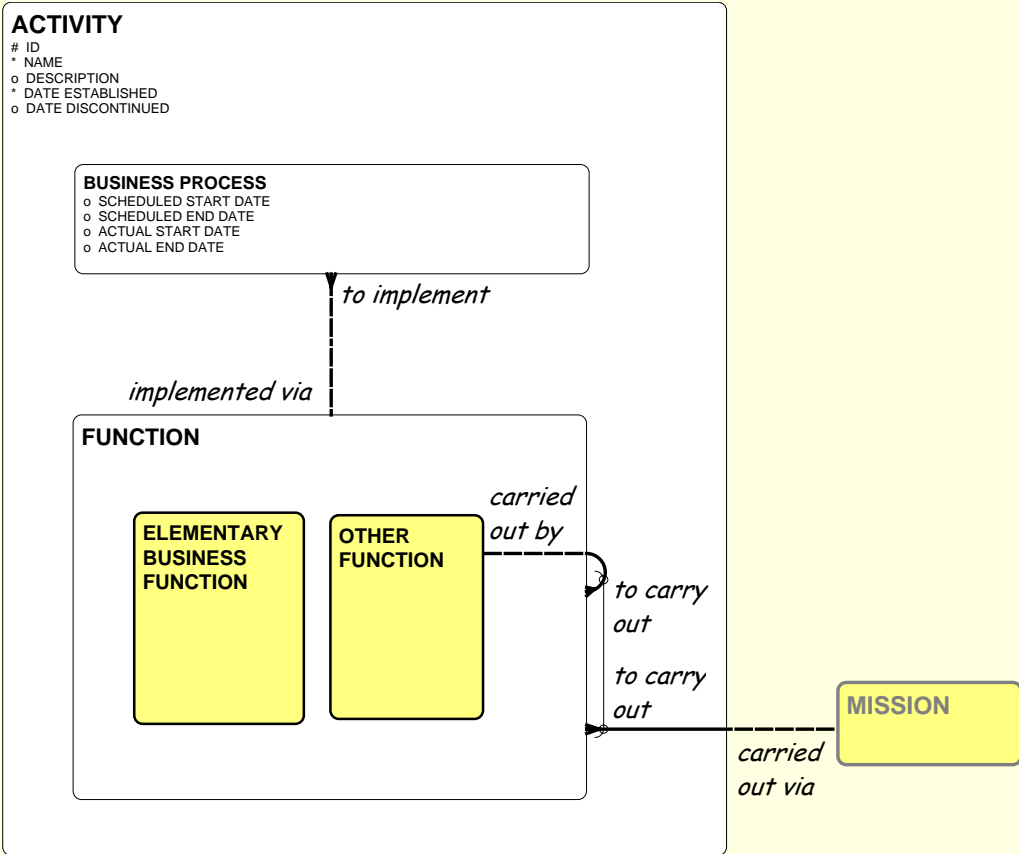
- o SCHEDULED START DATE
- o SCHEDULED END DATE
- o ACTUAL START DATE
- o ACTUAL END DATE

FUNCTION

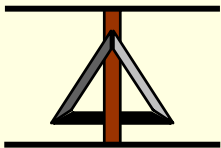
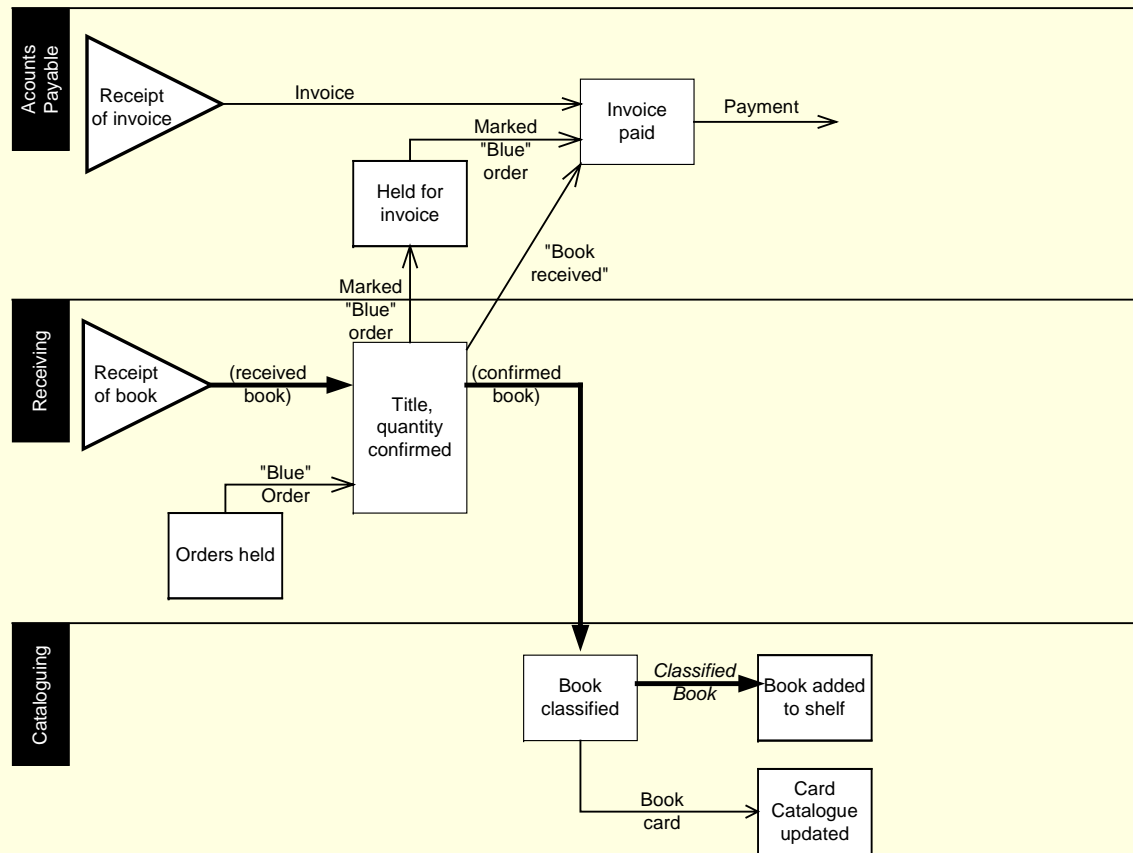


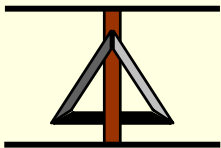
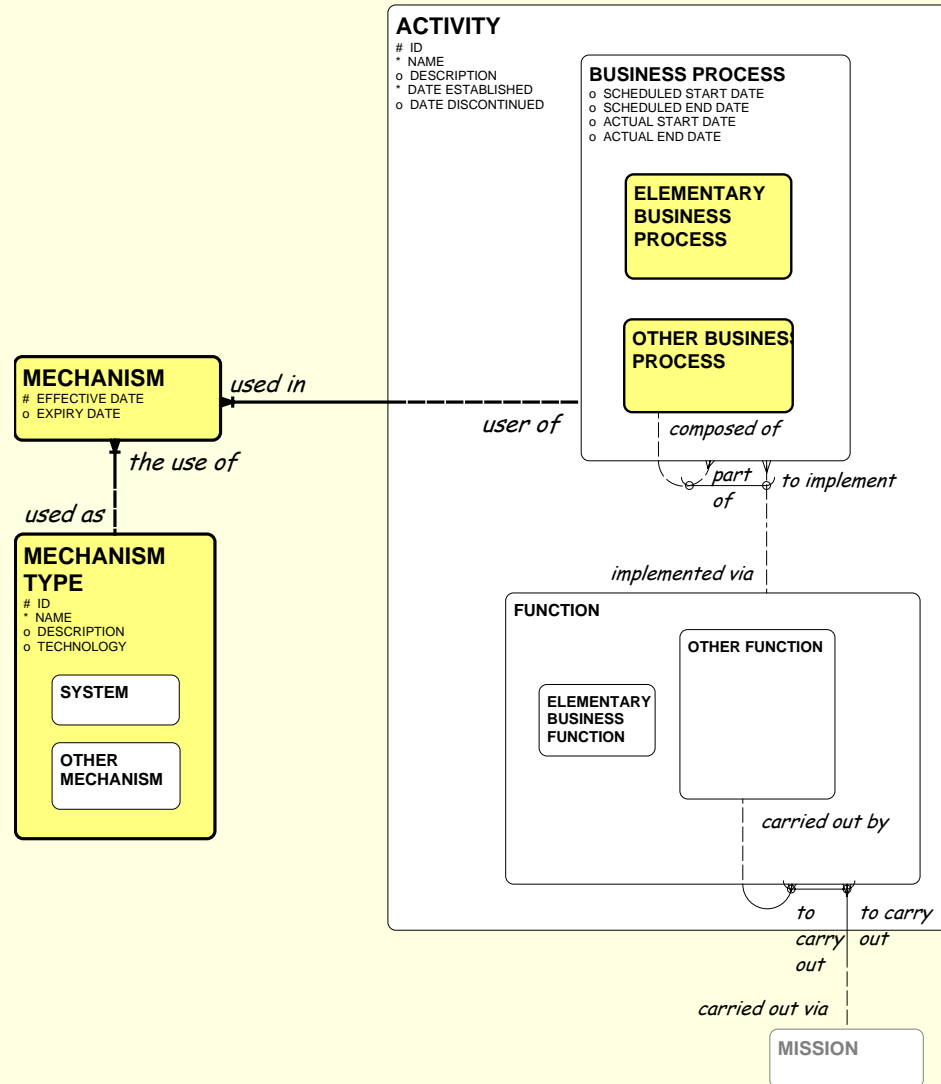
A Sample Function Hierarchy . . .

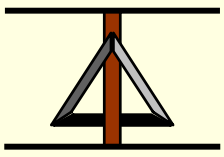
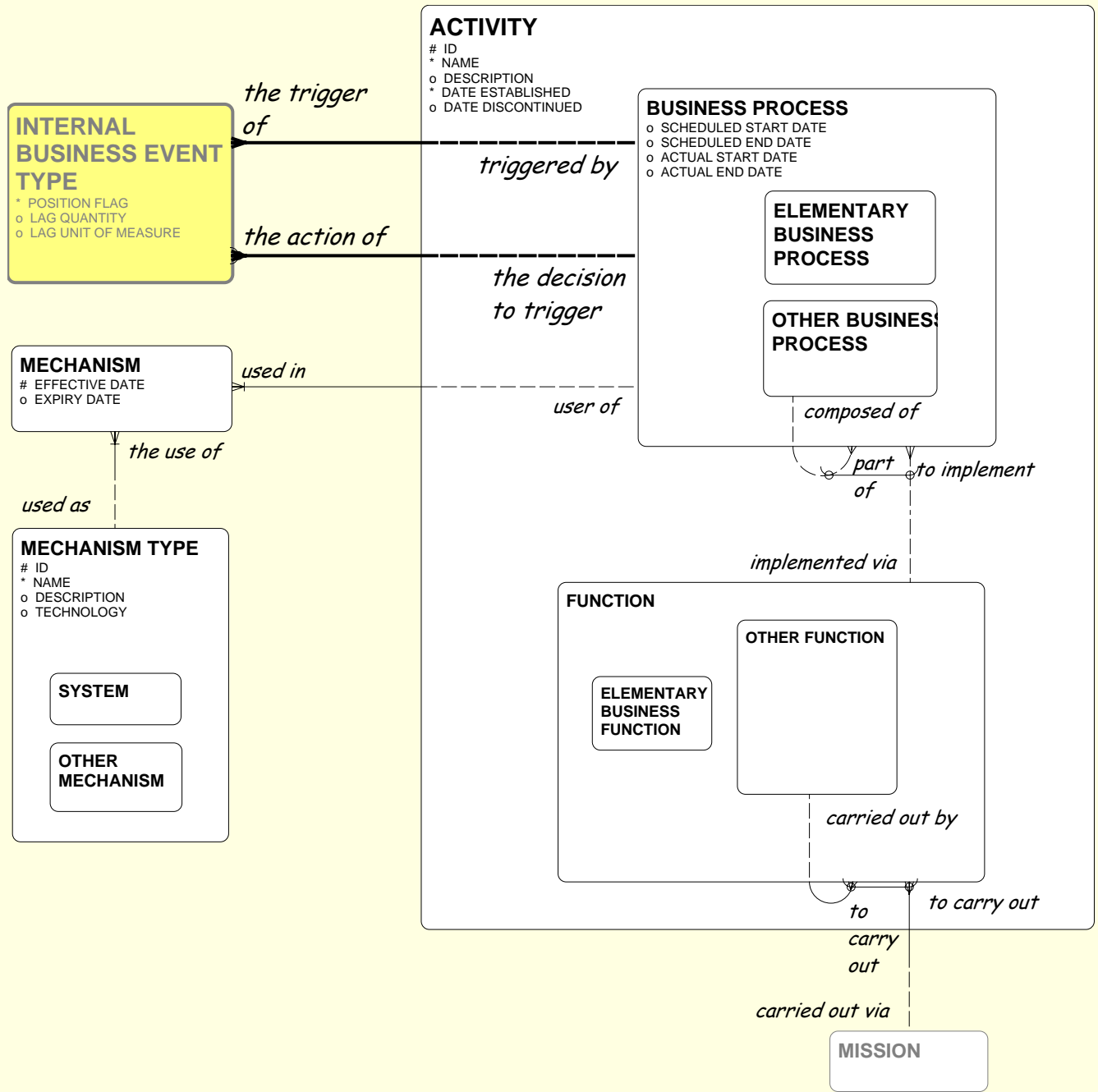


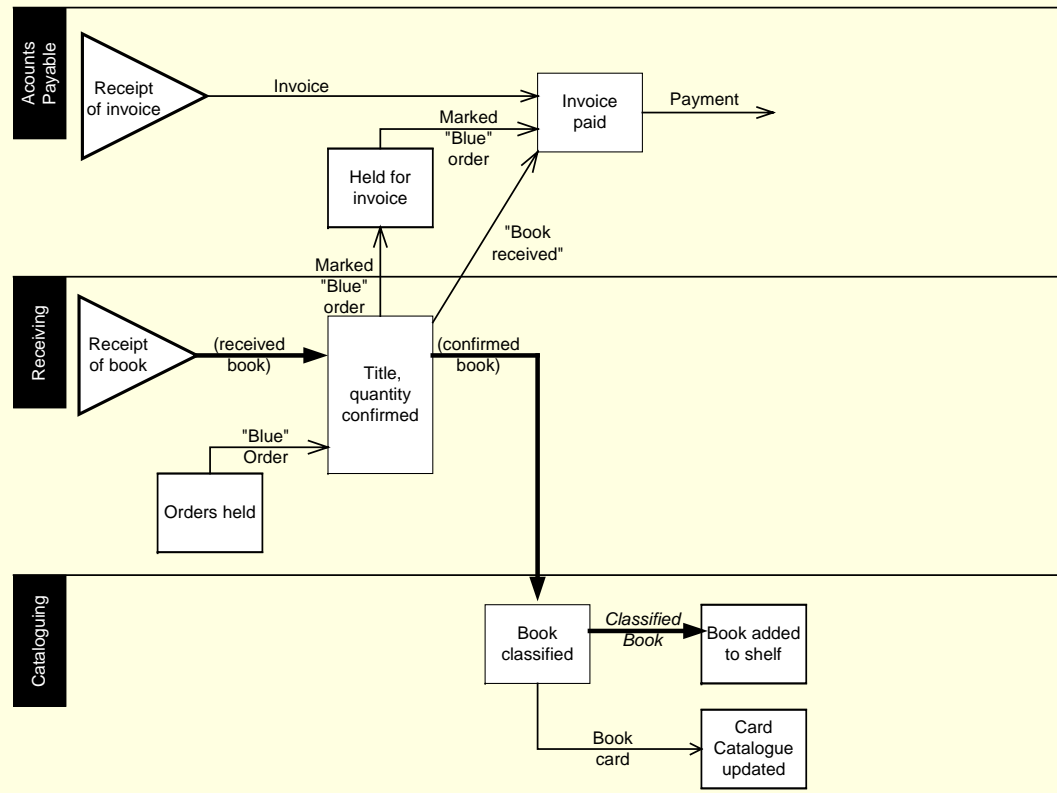


A Sample Process Model . . .

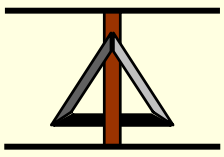
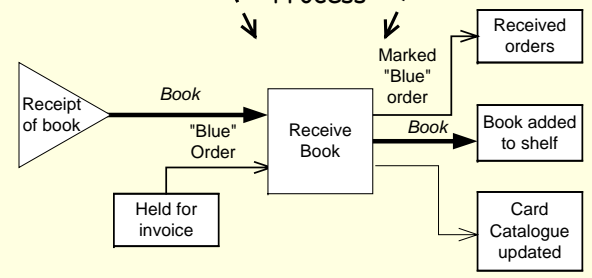


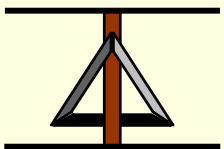
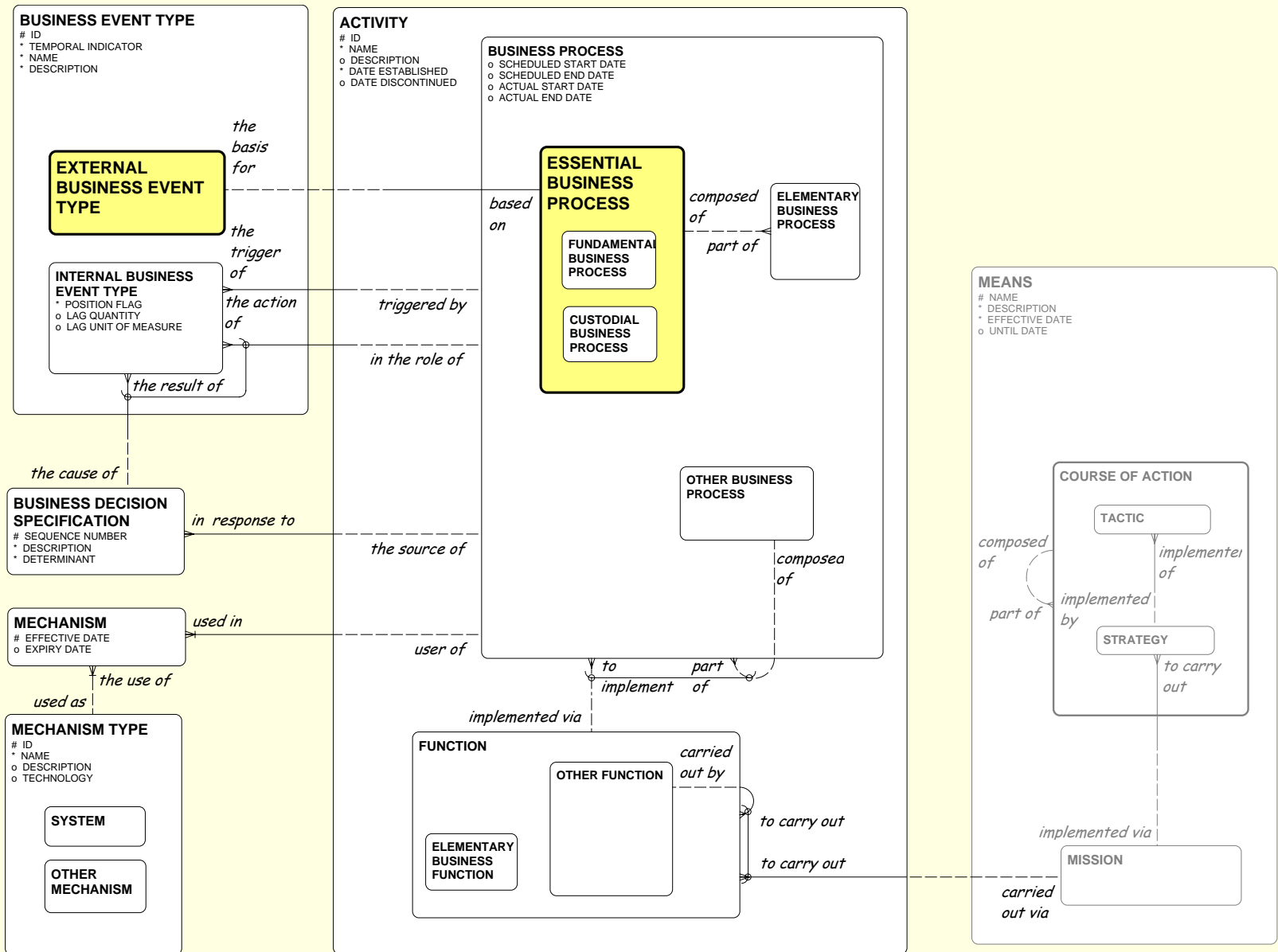


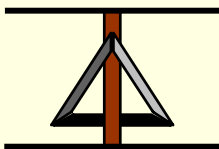
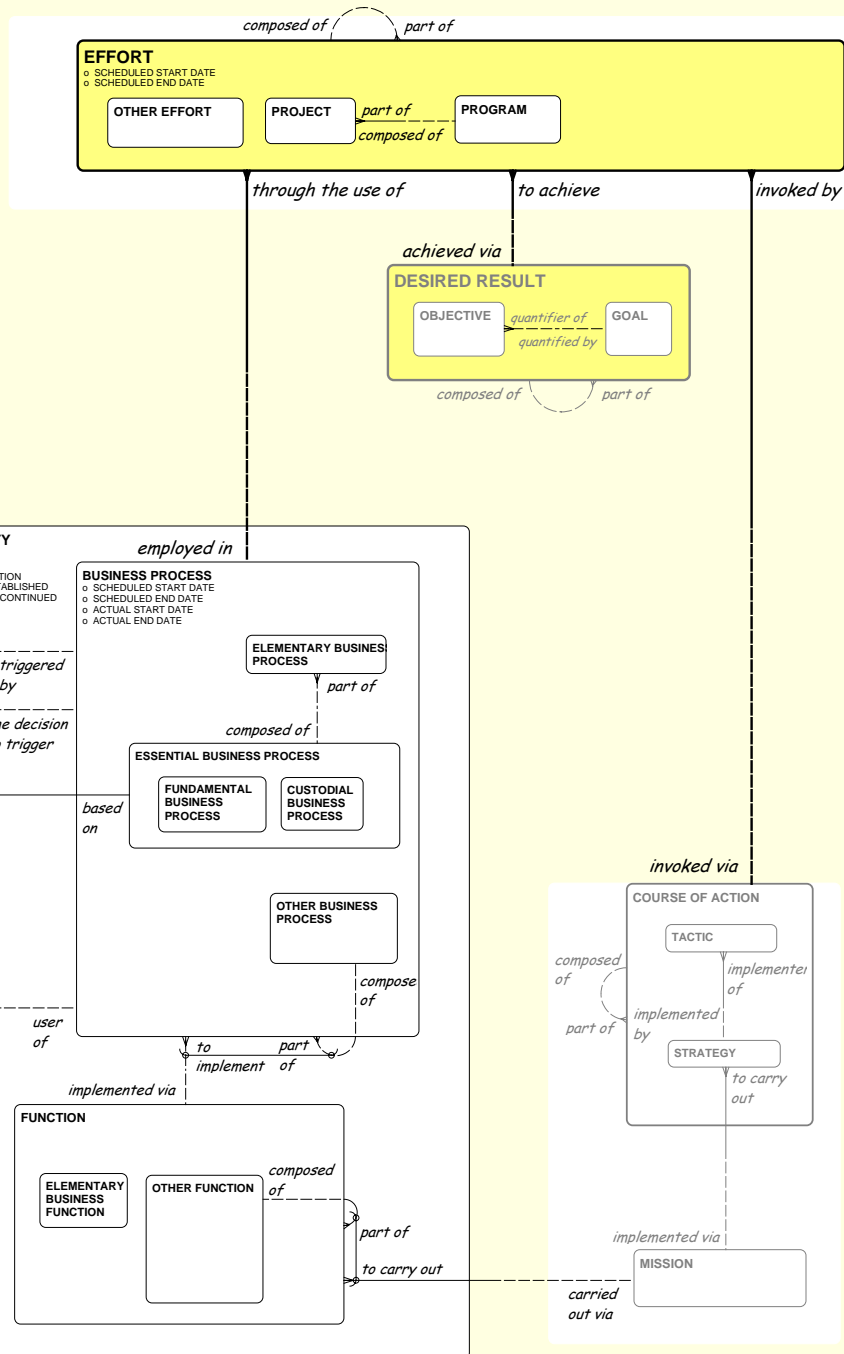




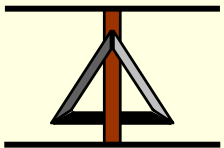
Roll up to
"Essential"
Business
Process







Row three:
The architect's View



BUSINESS PROCESS DESIGN

- * EFFECTIVE DATE
- o UNTIL DATE

*described
in terms of*

for

used for

*carried out
via*

SYSTEM PROCESS

- # IDENTIFIER
- * NAME
- * DESCRIPTION

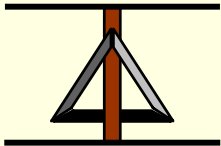
ACTIVITY

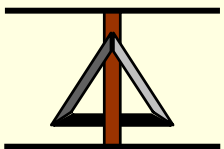
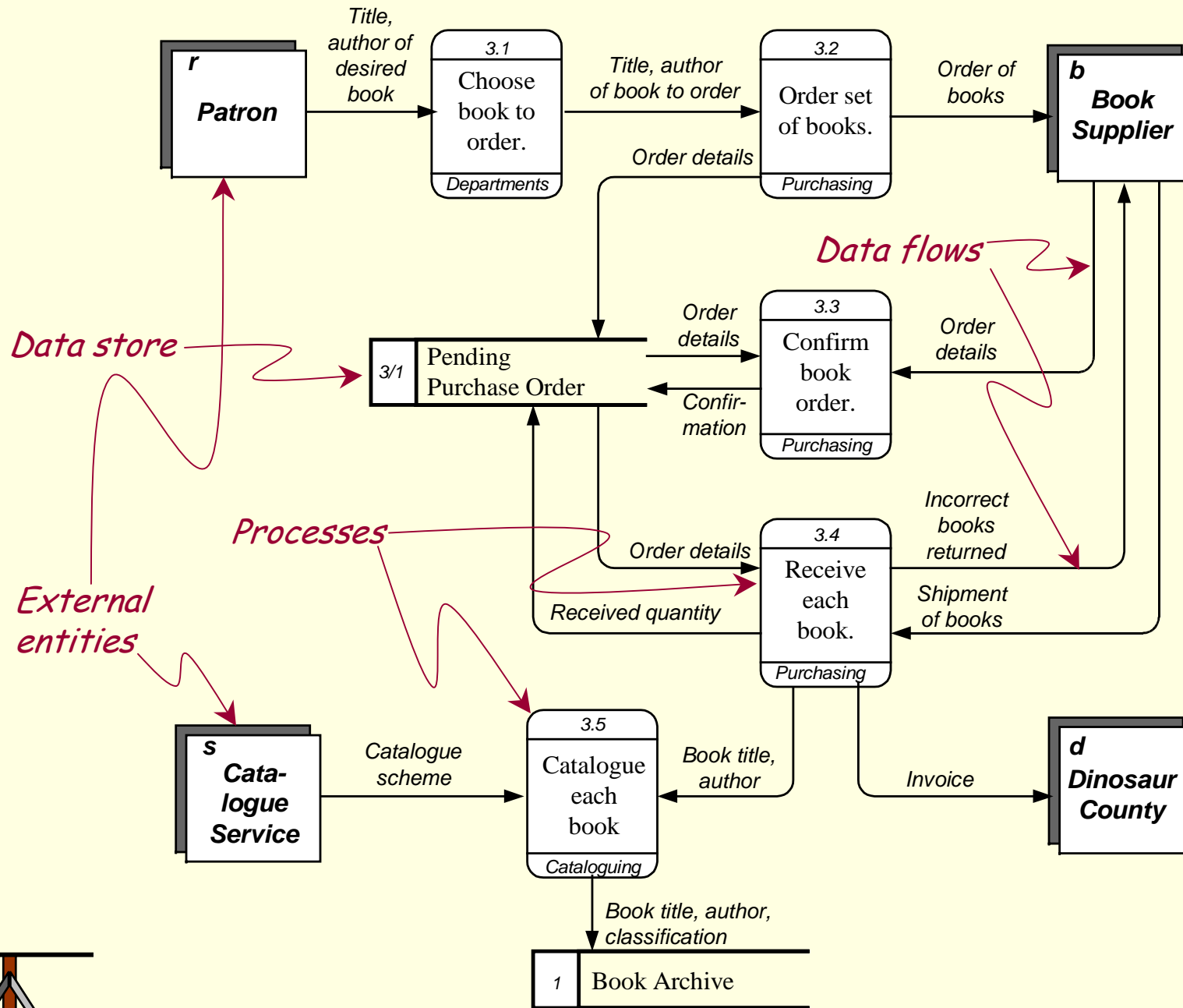
- # ID
- * NAME
- o DESCRIPTION
- * DATE ESTABLISHED
- o DATE DISCONTINUED

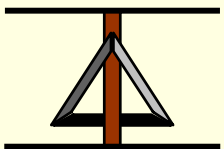
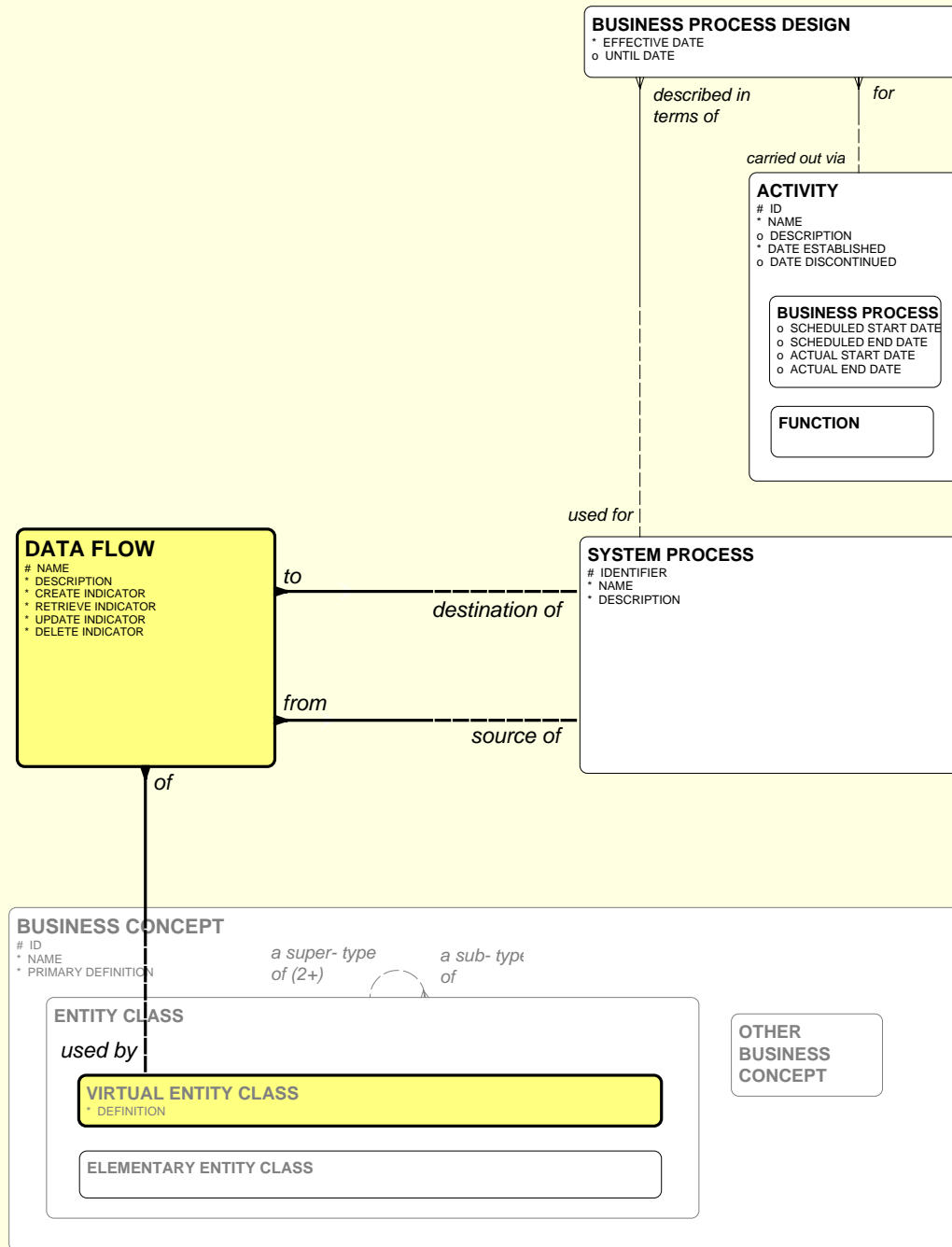
BUSINESS PROCESS

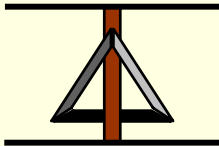
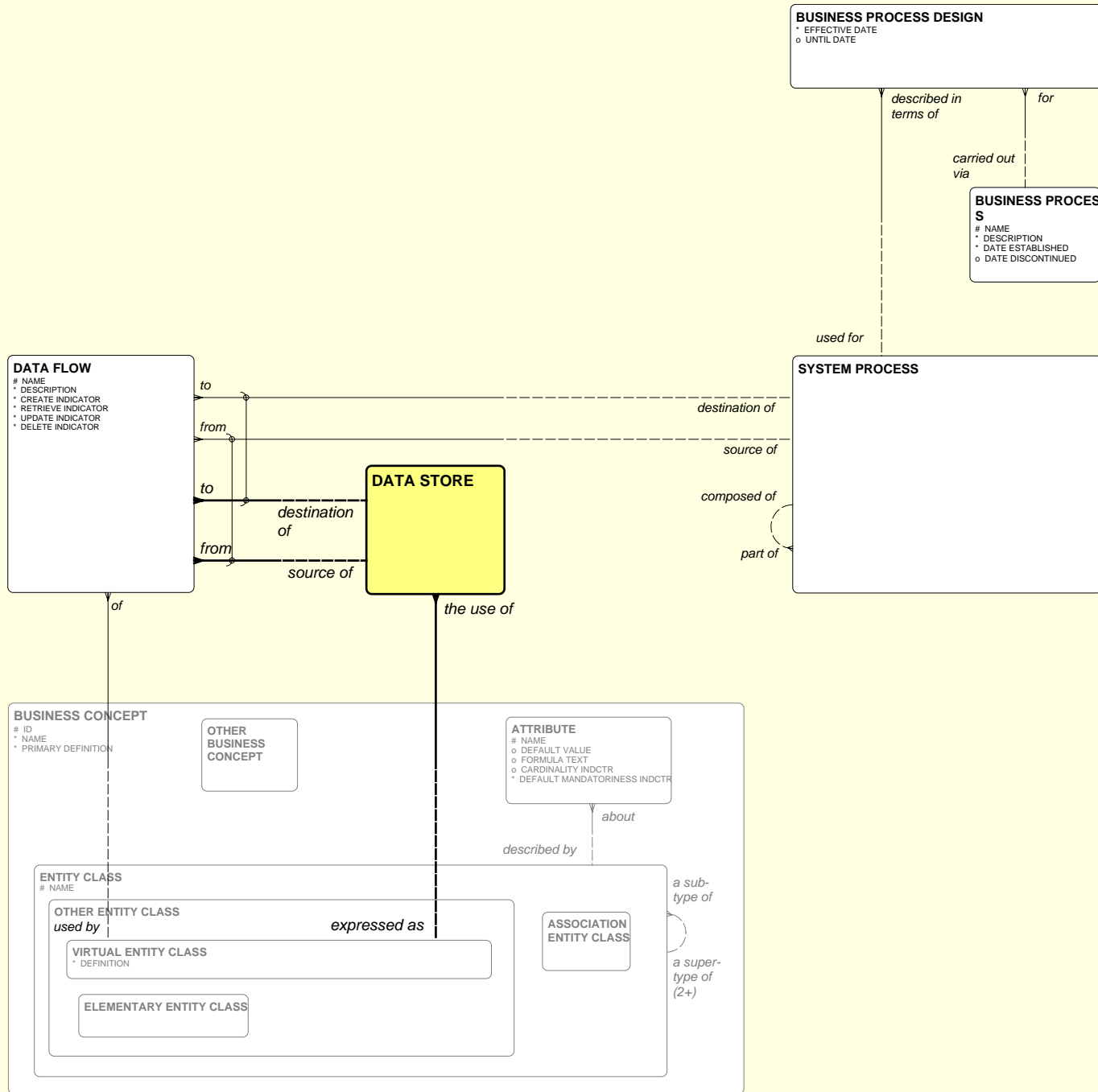
- o SCHEDULED START DATE
- o SCHEDULED END DATE
- o ACTUAL START DATE
- o ACTUAL END DATE

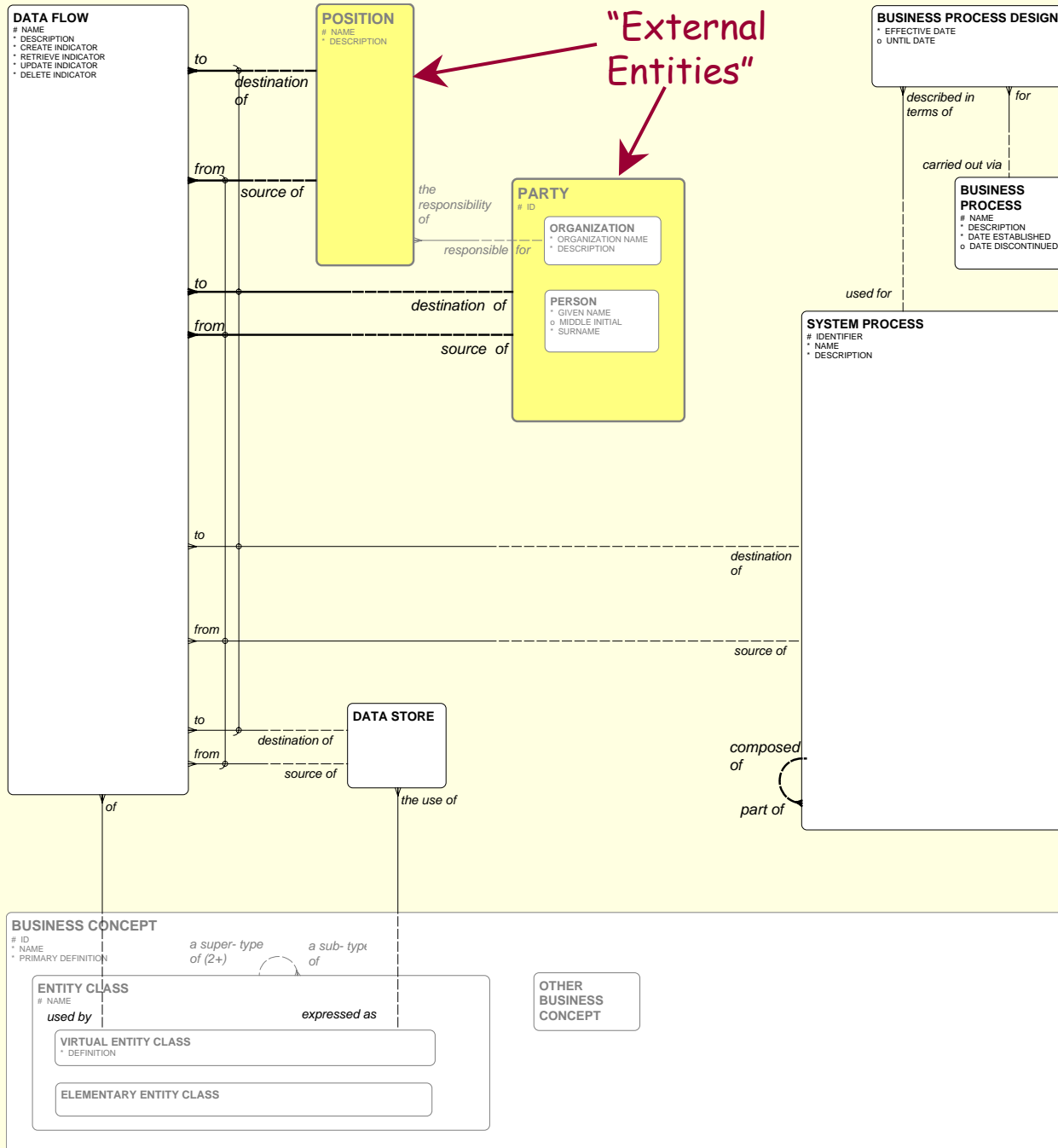
FUNCTION



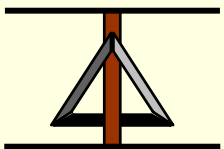


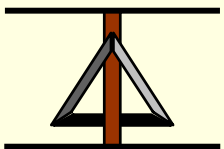
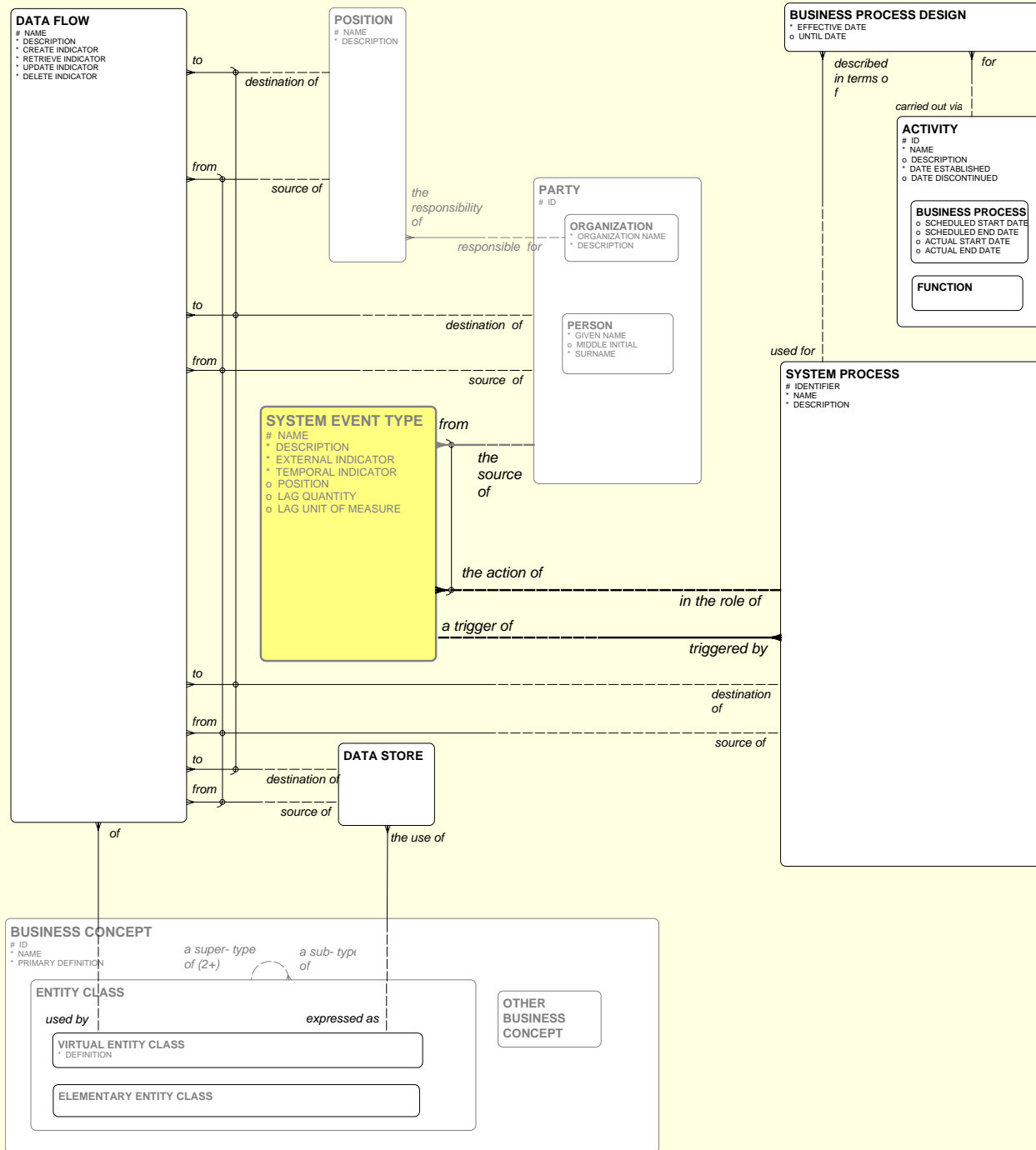




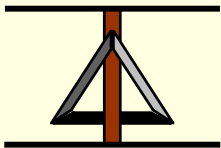
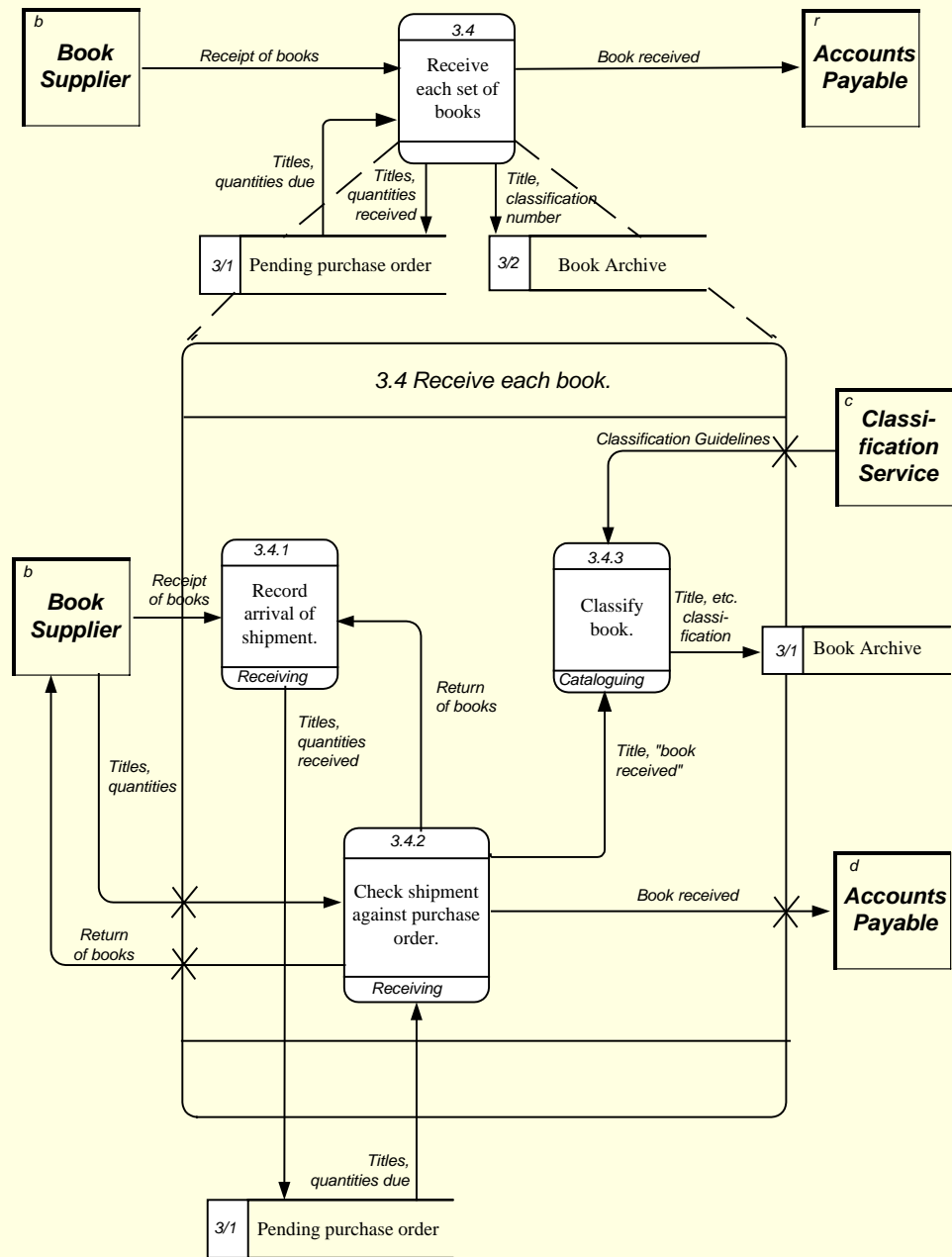


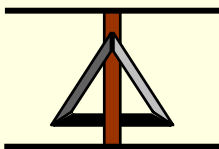
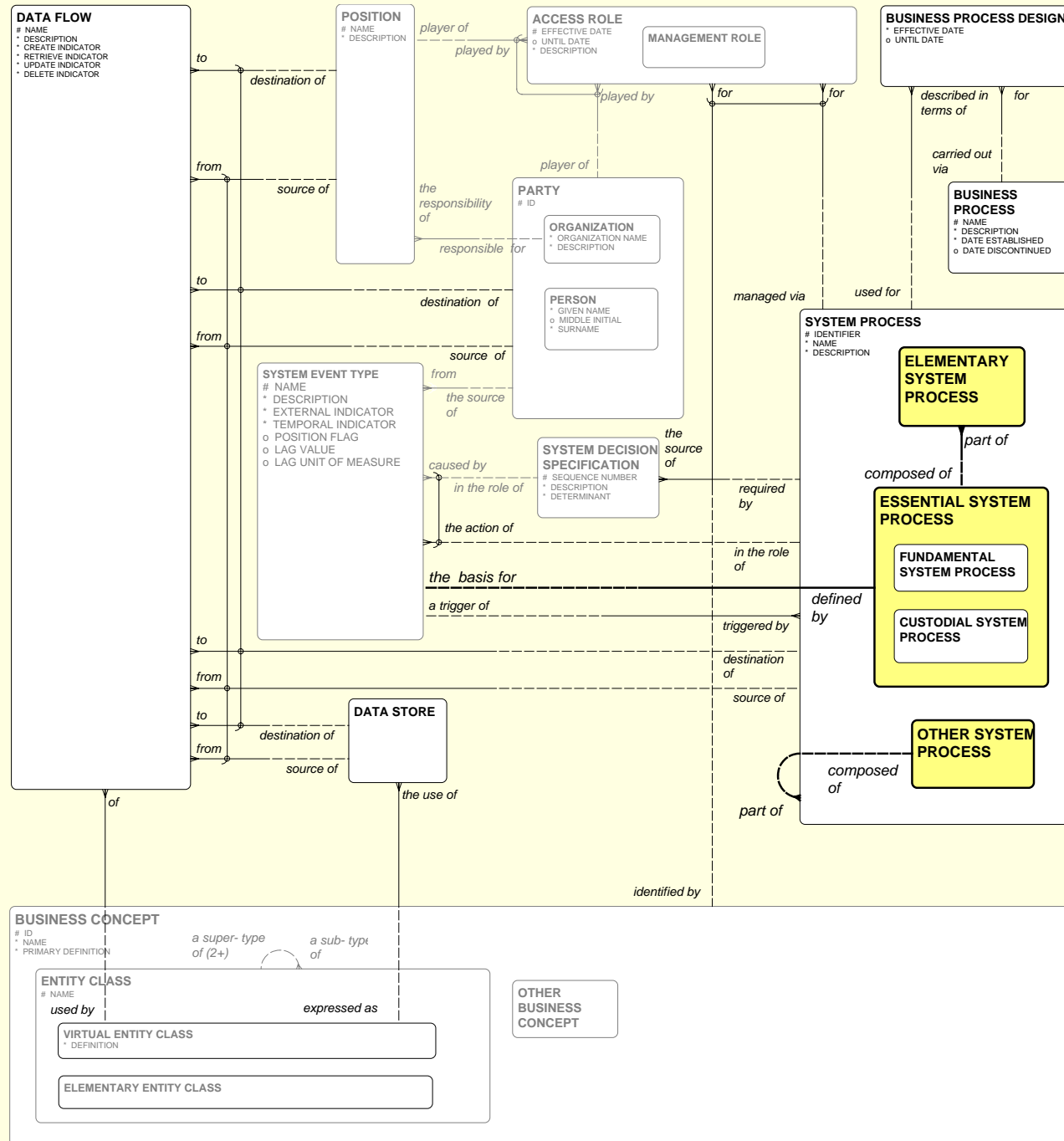
"External Entities"



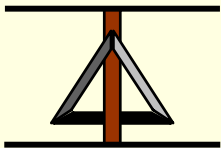


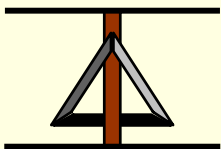
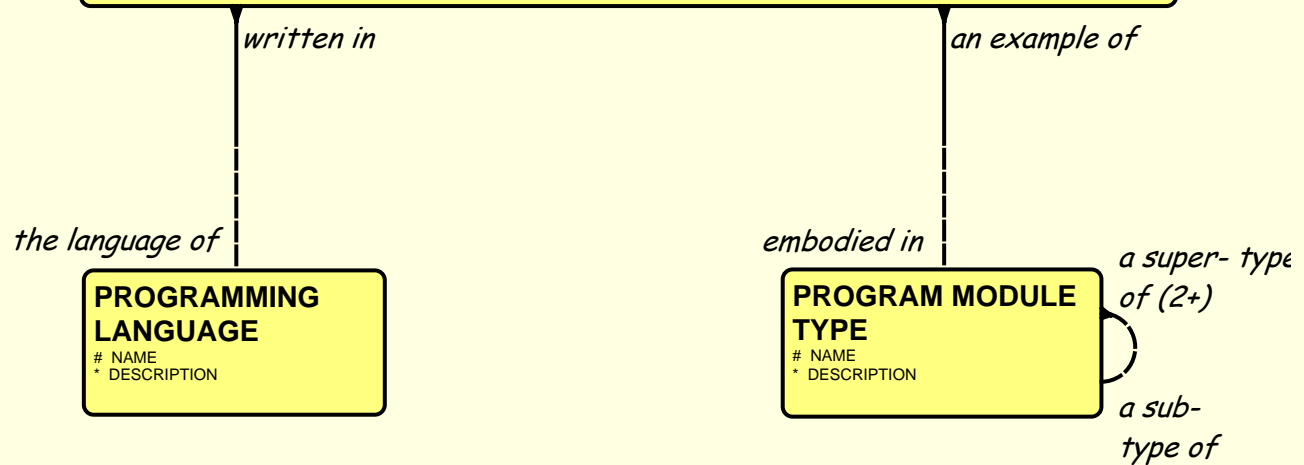
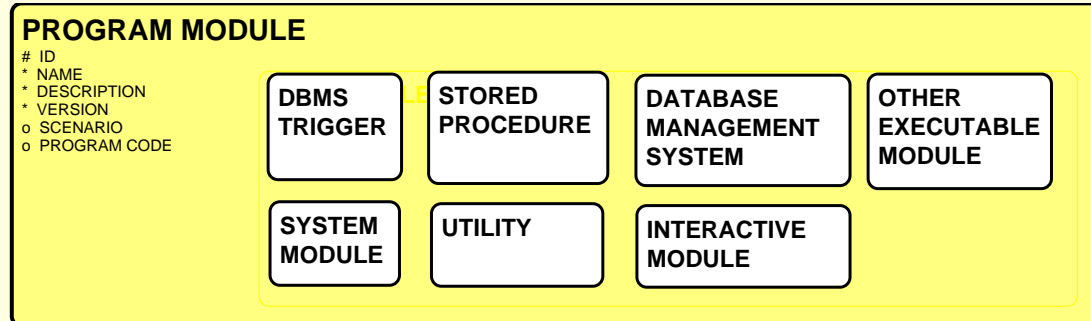
Sample Essential Data Flow Diagram . . .

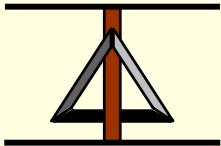
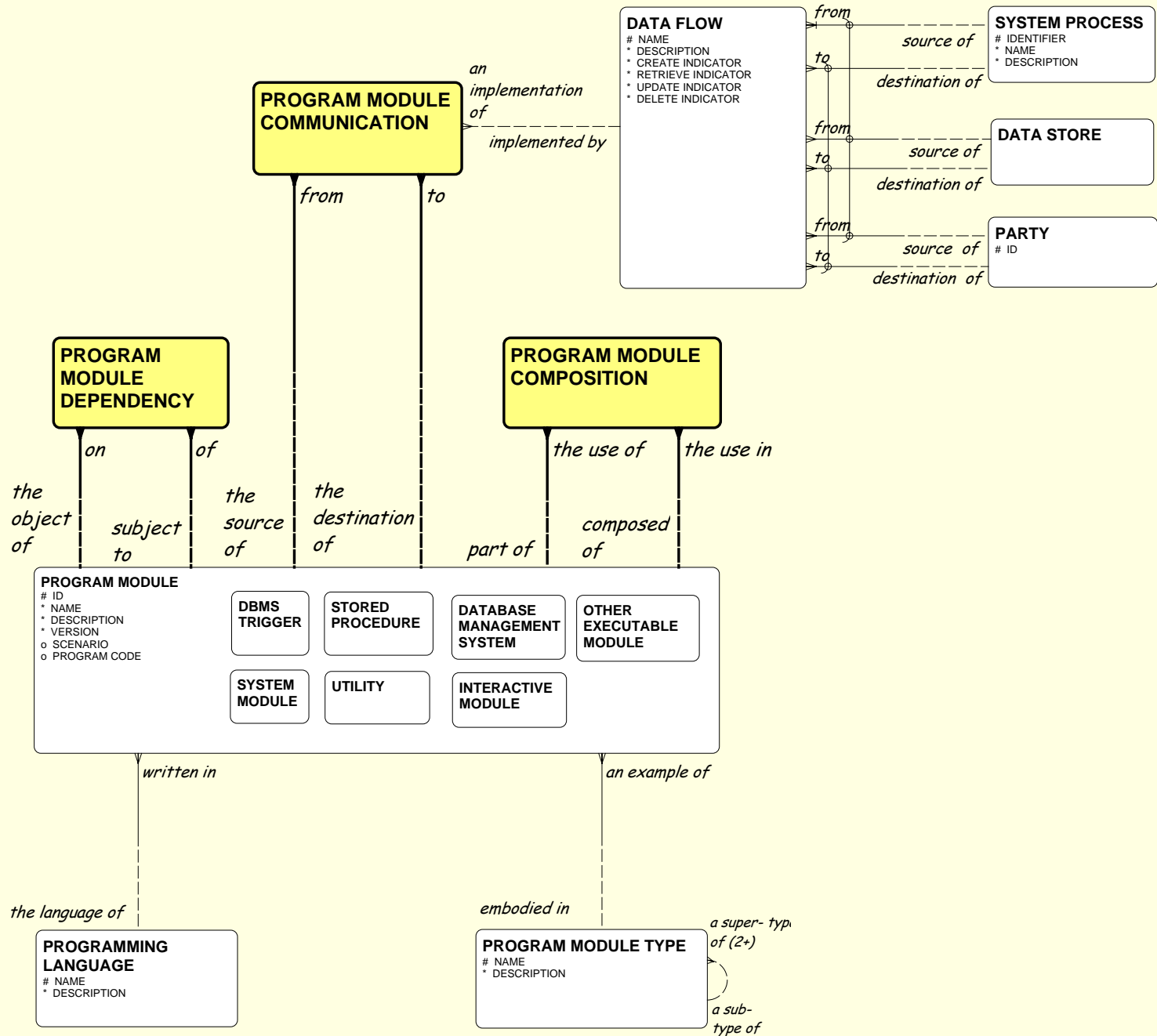


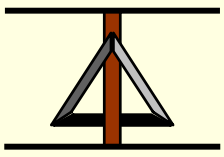
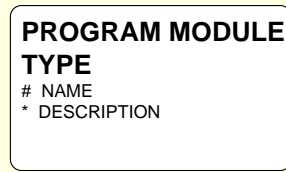
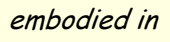
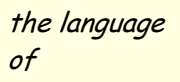
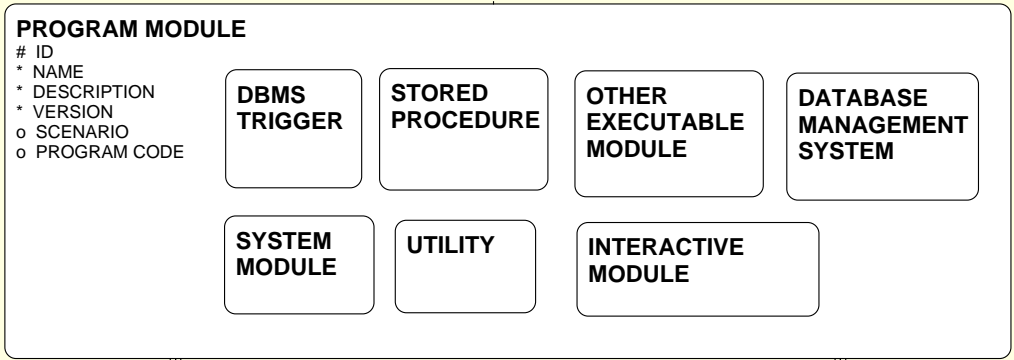
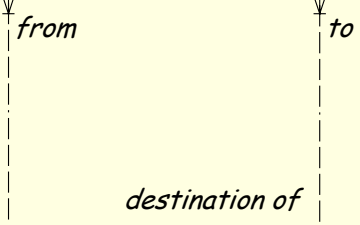
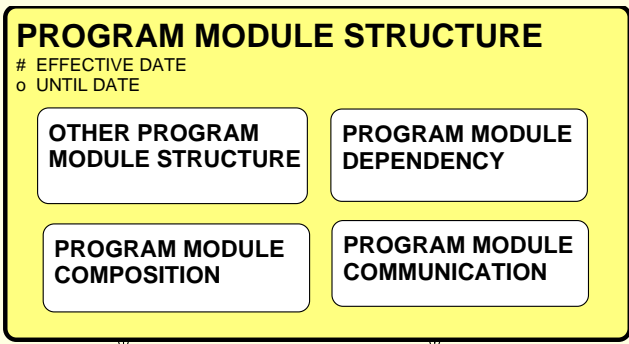


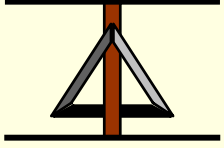
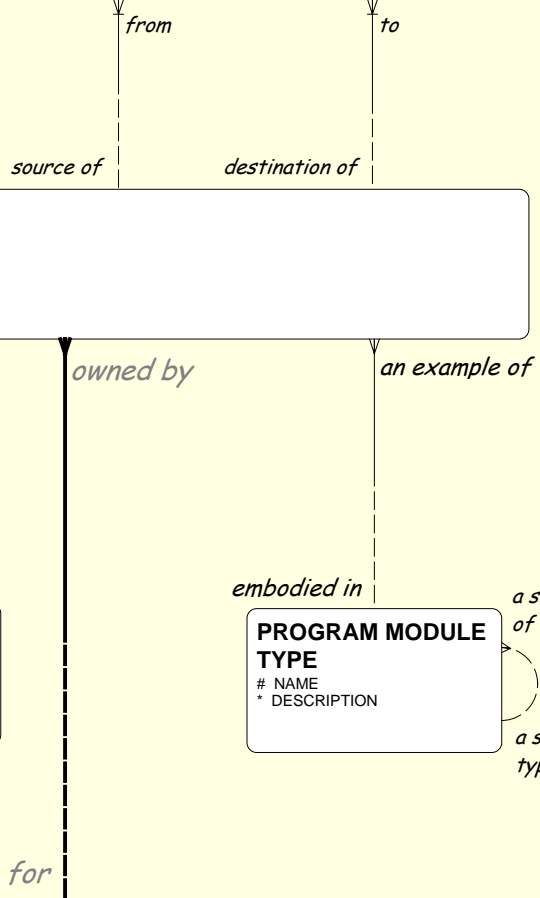
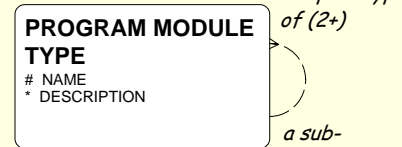
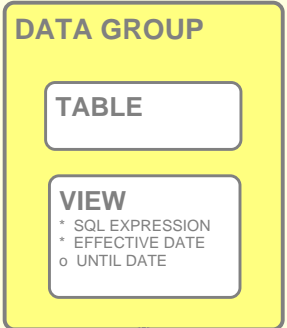
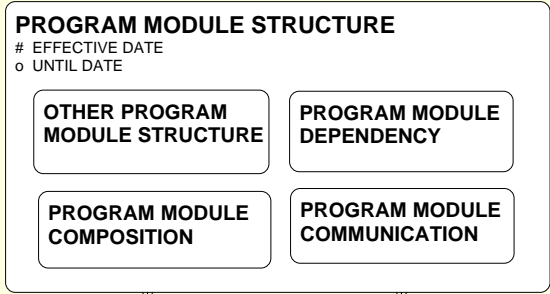
Row four:
The designer's View

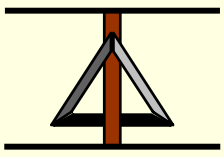
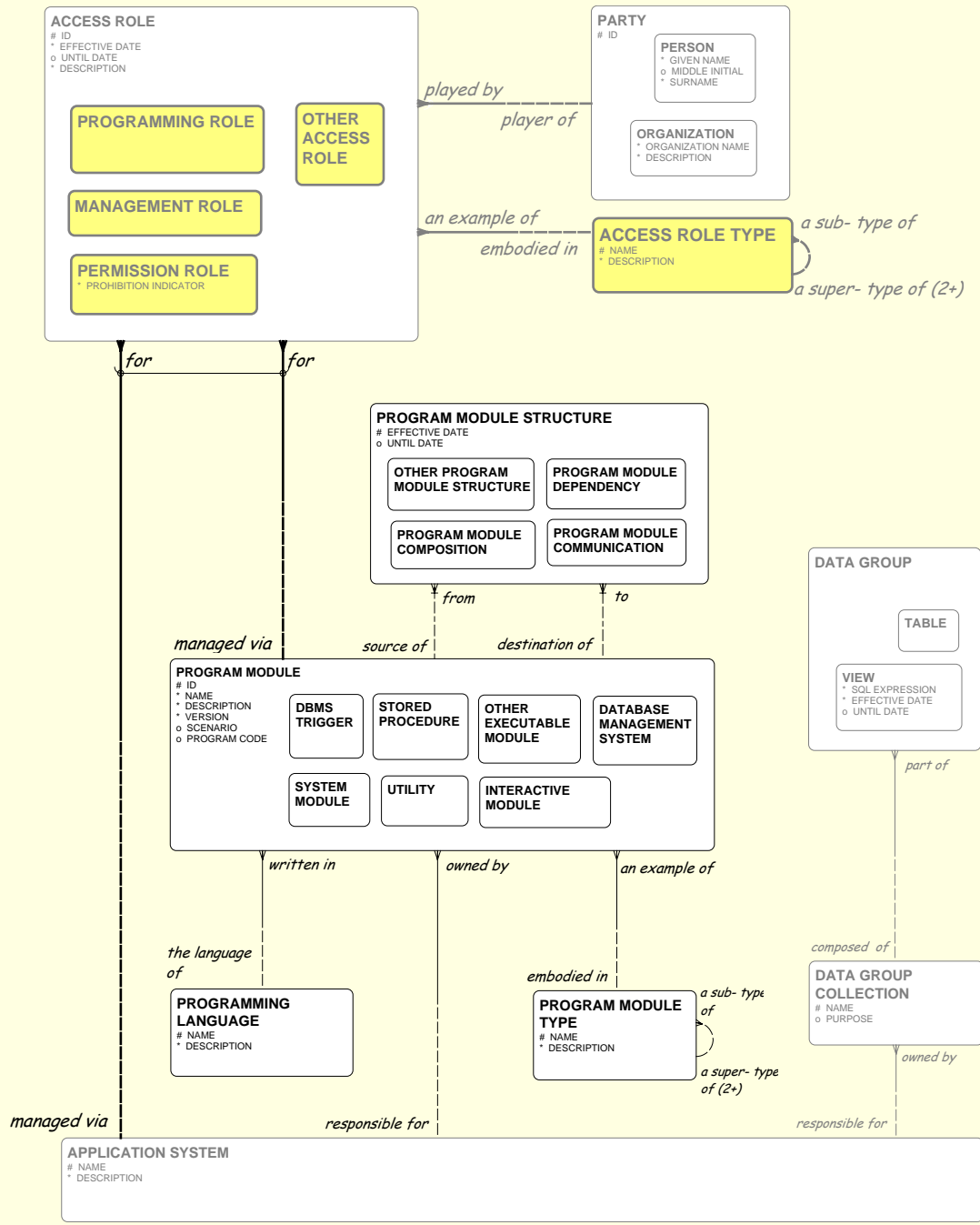


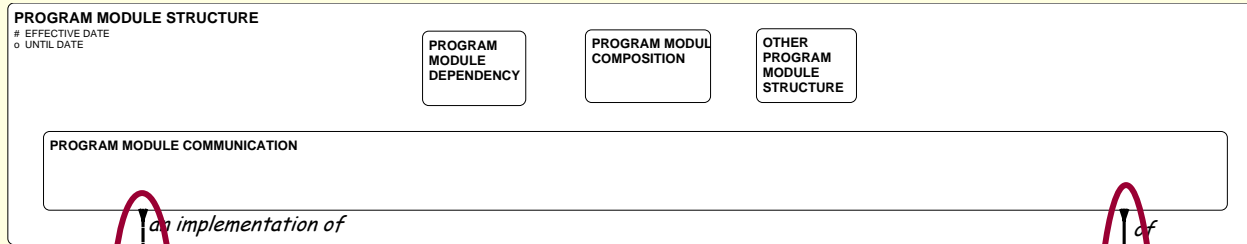




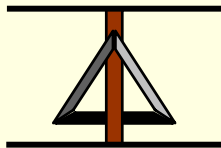
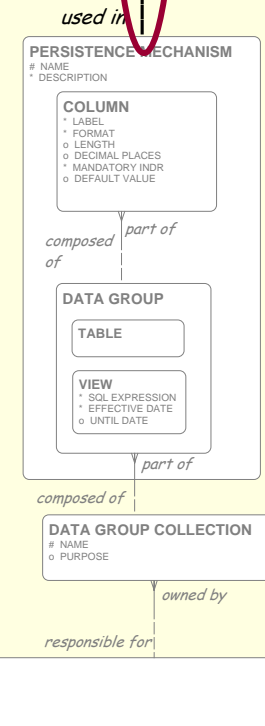
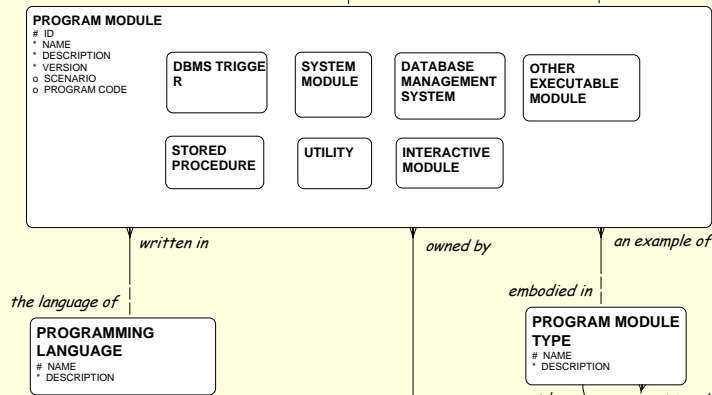
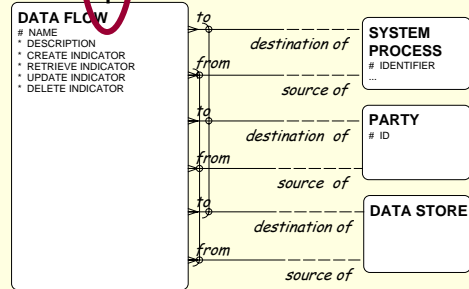


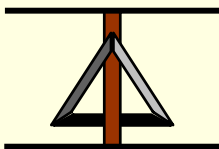
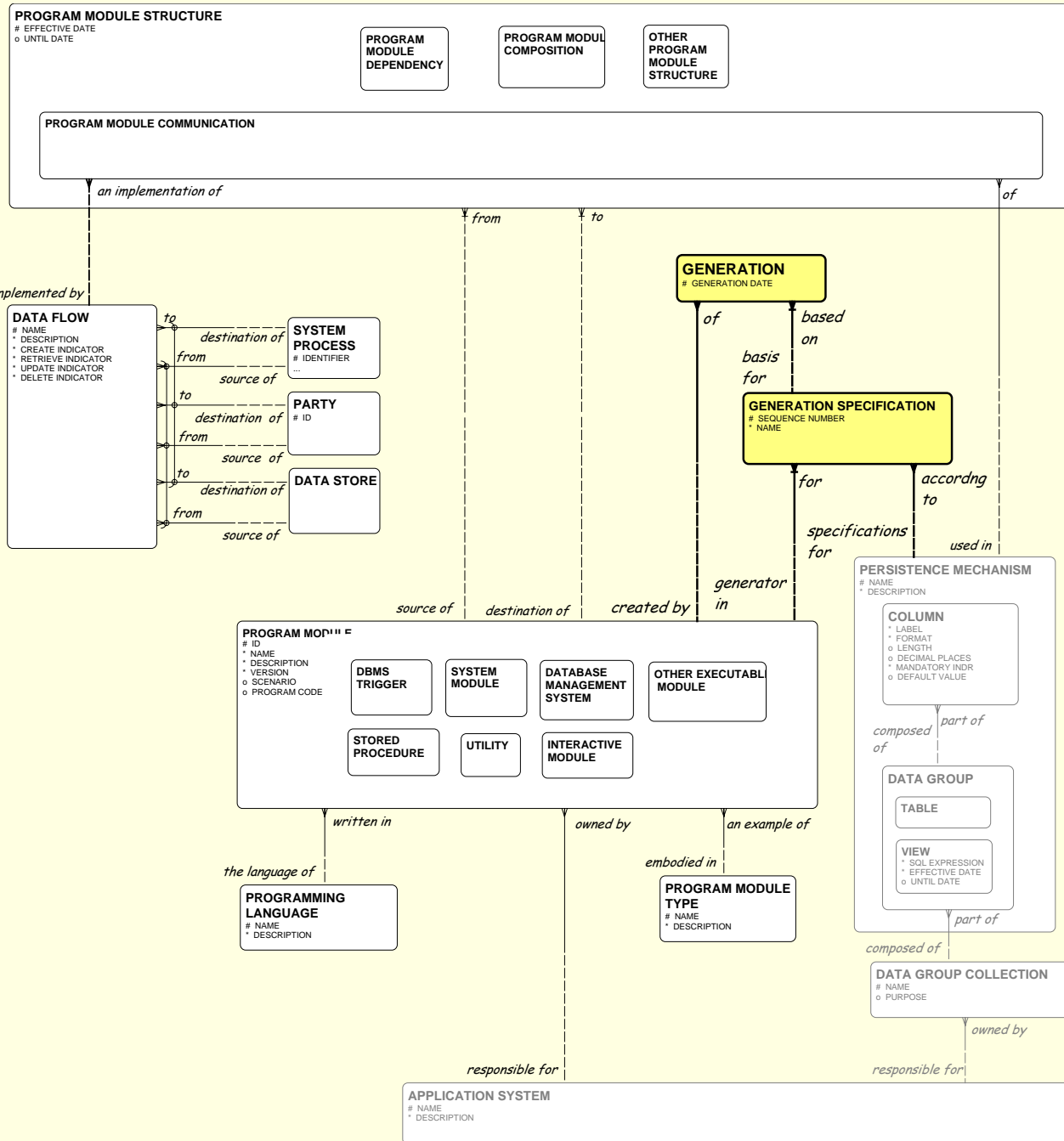


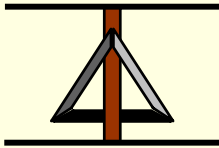
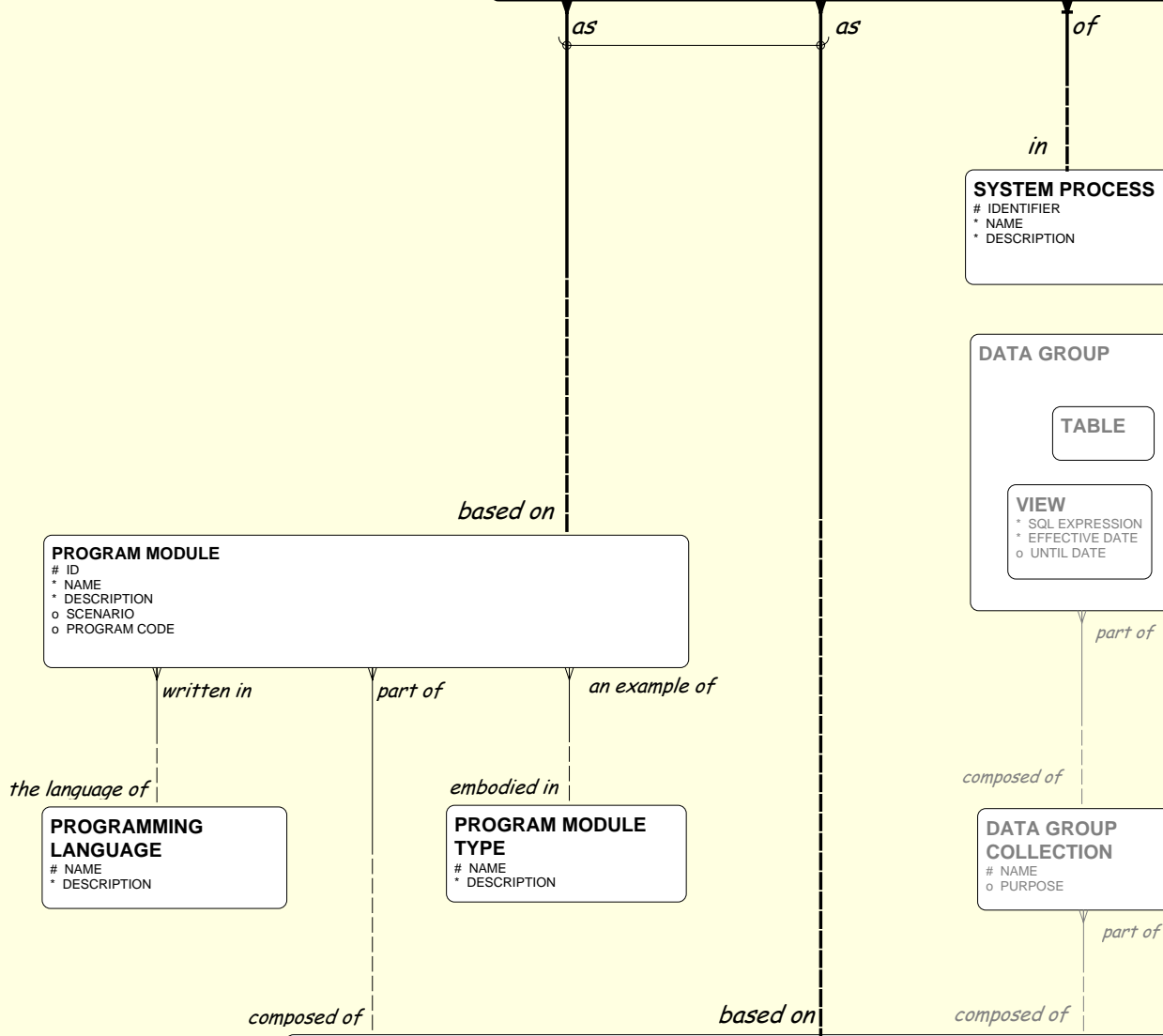
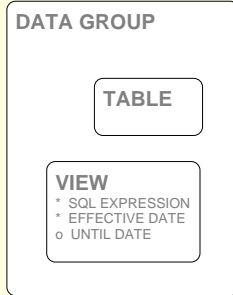
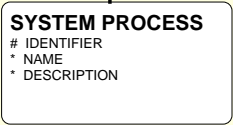




implemented by







PROGRAM MODULE

- # ID
- * NAME
- * DESCRIPTION
- * VERSION
- o SCENARIO
- o PROGRAM CODE

CLASS IMPLEMENTATION

ARCHITECTURAL CLASS

BUSINESS CLASS

FOUNDATION CLASS

APPLICATION CLASS

a generalization of

inheriting from

part of

acted upon by

EXECUTABLE MODULE

composed of

to act upon

INTERACTIVE MODULE

PACKAGE

METHOD

UTILITY

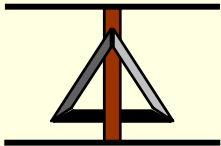
DATABASE MANAGEMENT SYSTEM

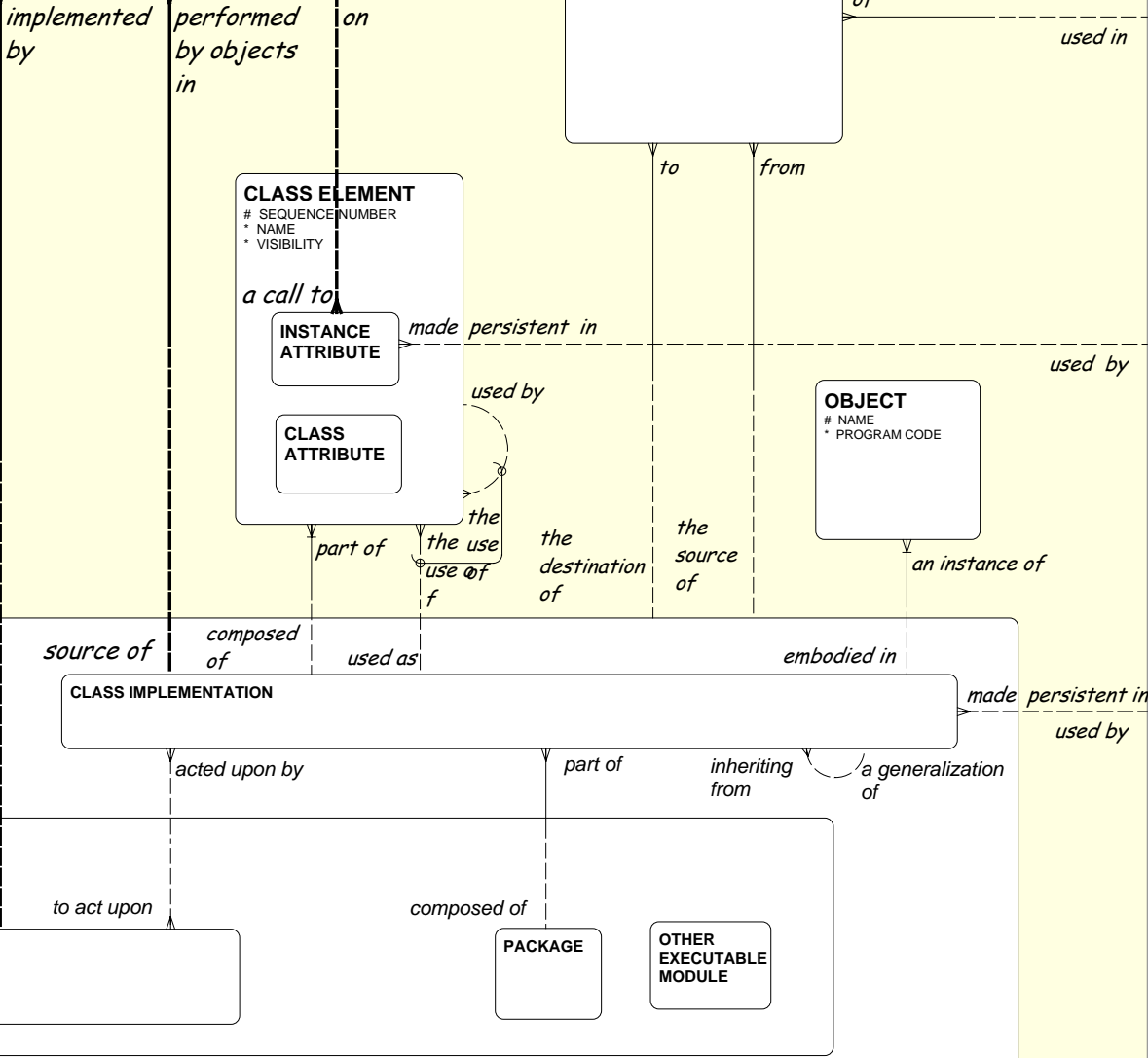
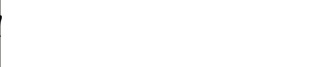
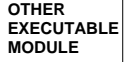
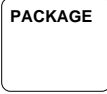
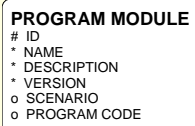
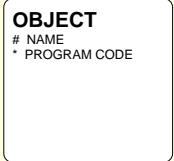
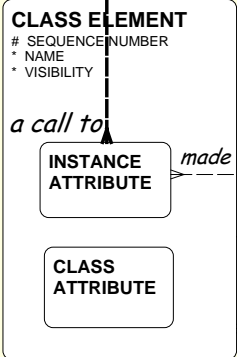
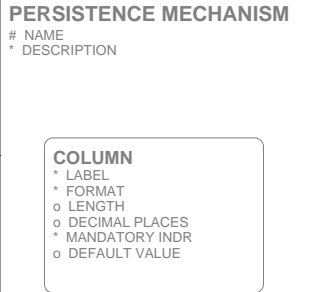
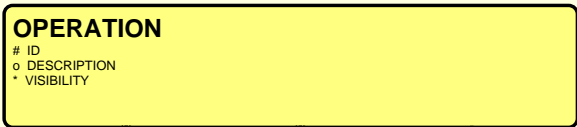
STORED PROCEDURE

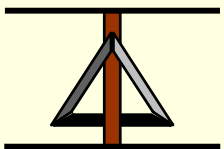
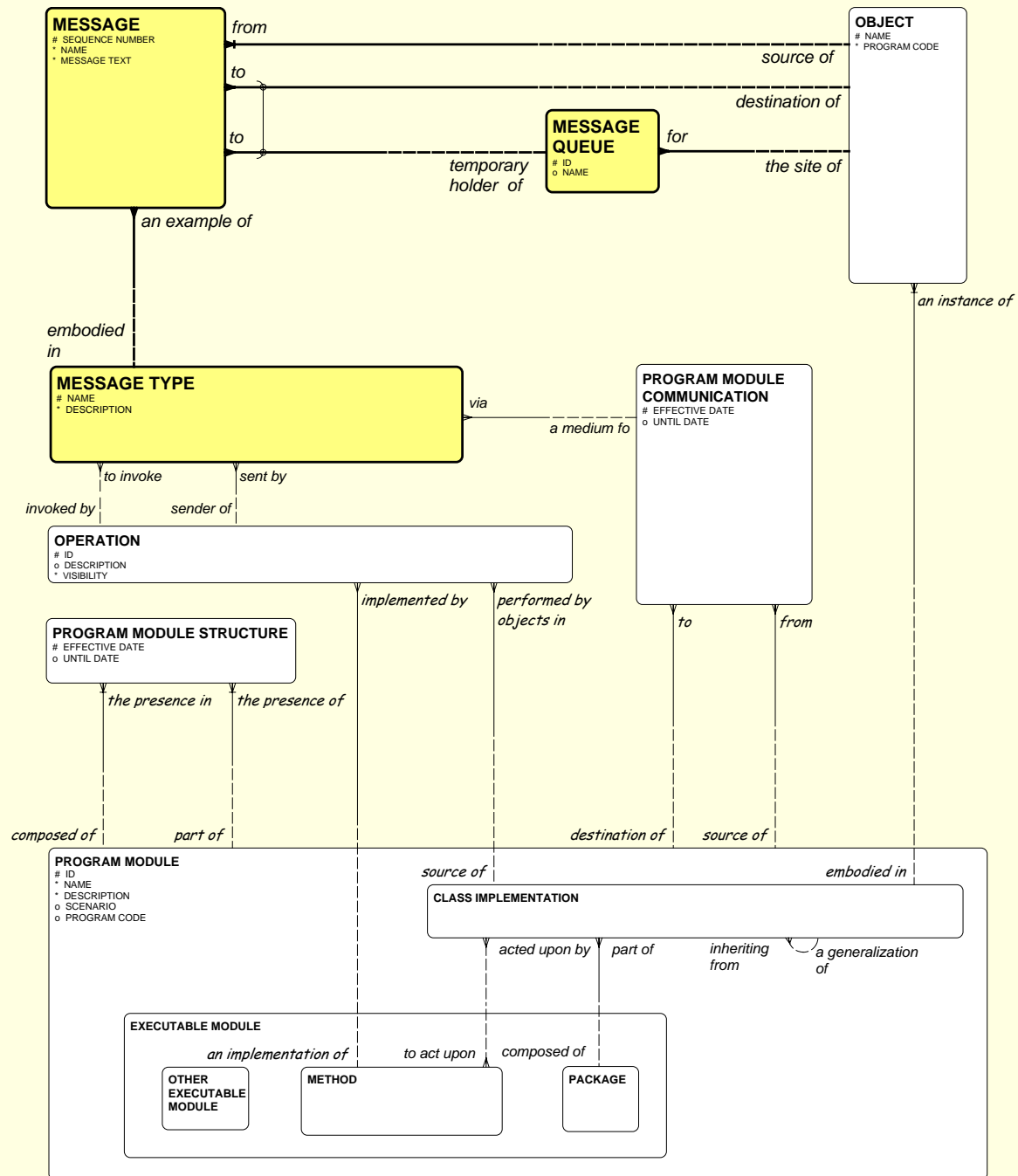
OTHER EXECUTABLE MODULE

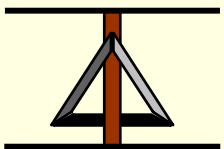
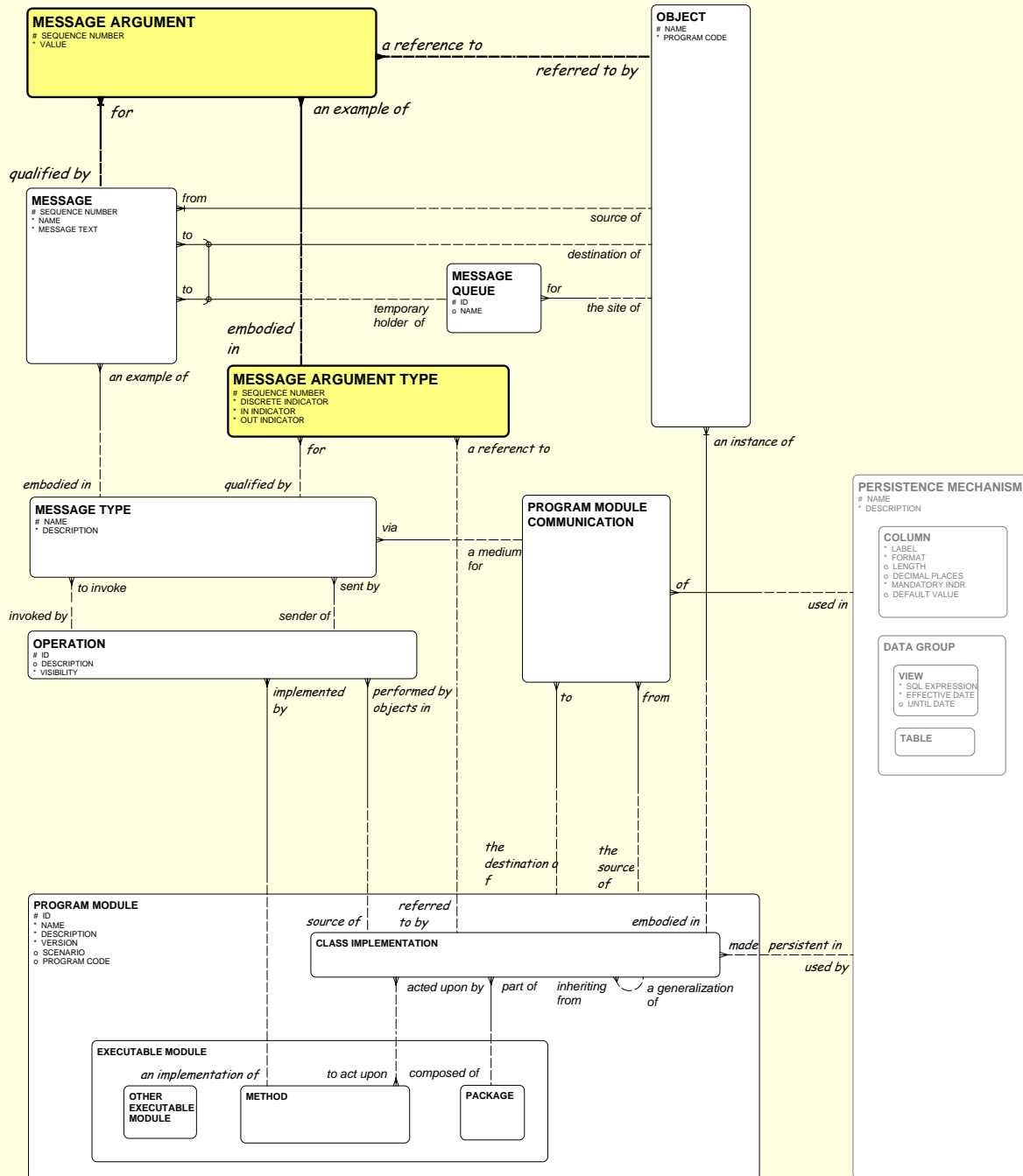
SYSTEM MODULE

DBMS TRIGGER

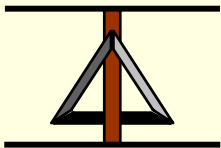


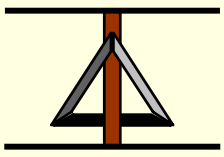
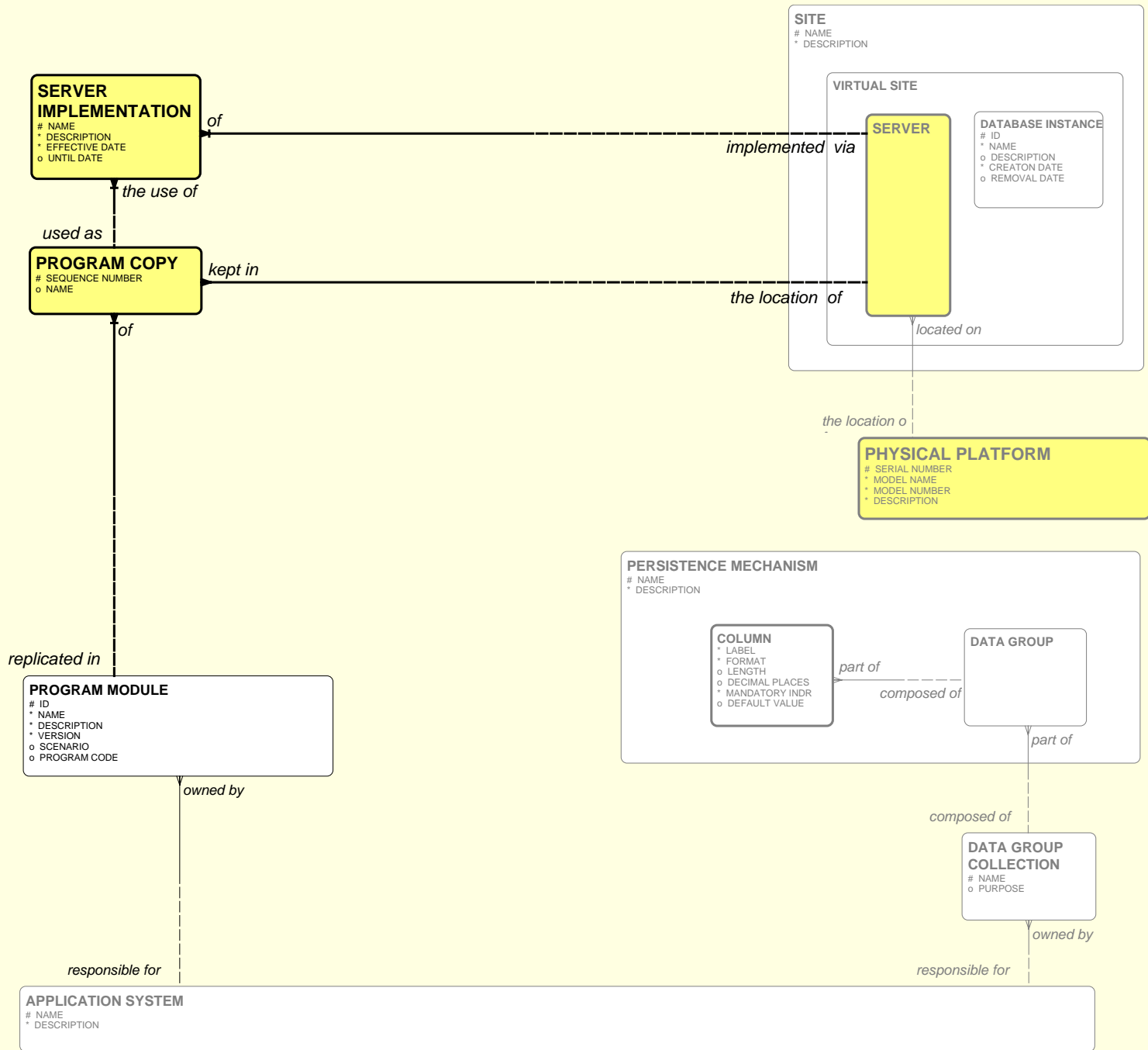






Row SIX:
The FUNCTIONING SYSTEM





. . . to be continued . . .

